



5-year warranty



Technical data

Functional data	Valve Size	2.5" [65]
	Fluid	chilled or hot water, up to 60% glycol
	Fluid Temp Range (water)	0...250°F [-18...120°C]
	Body Pressure Rating	ANSI Class 125, standard class B
	Close-off pressure Δ ps	175 psi
	Flow characteristic	equal percentage
	Servicing	maintenance-free
	Flow Pattern	2-way
	Leakage rate	0% for A – AB
	Controllable flow range	75°
	Cv	70
	ANSI Class	125
	Body pressure rating note	standard class B
	Cv Flow Rating	A-port: as stated in chart B-port: 70% of A – AB Cv
Materials	Valve body	Cast iron - GG 25
	Stem seal	EPDM (lubricated)
	Seat	PTFE
	Pipe connection	pattern to mate with ANSI 125 flange
	O-ring	EPDM (lubricated)
	Ball	stainless steel
Suitable actuators	Non-Spring	ARB(X)

Safety notes

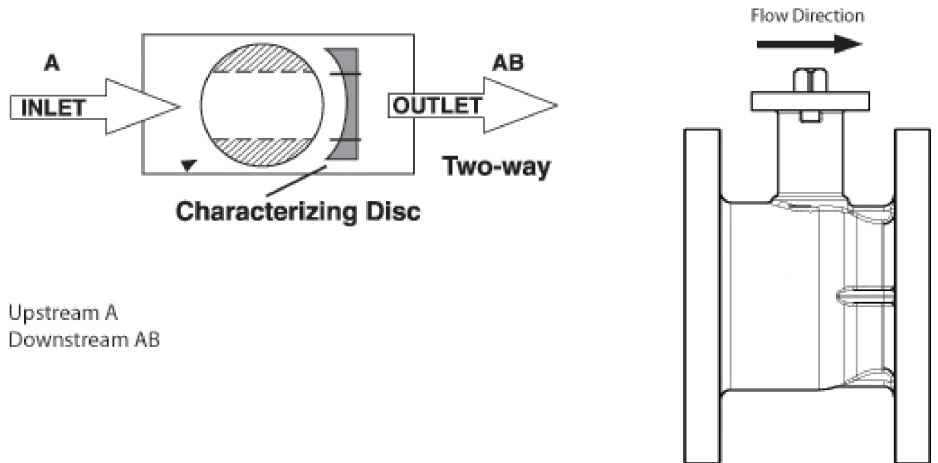


- **WARNING:** This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

Product features

Application This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

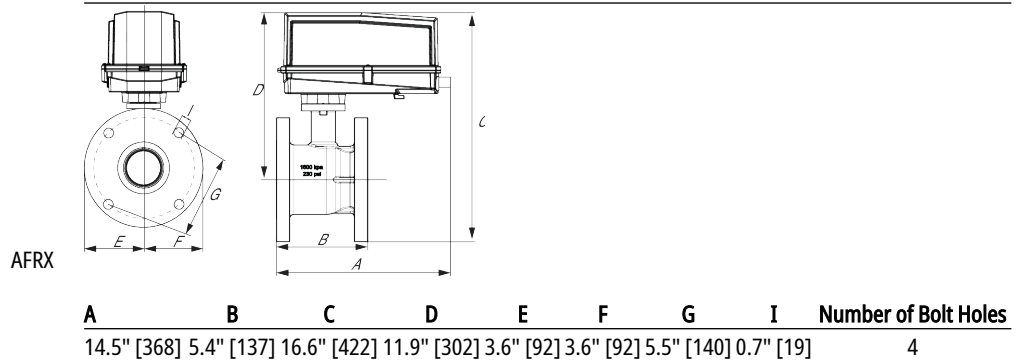
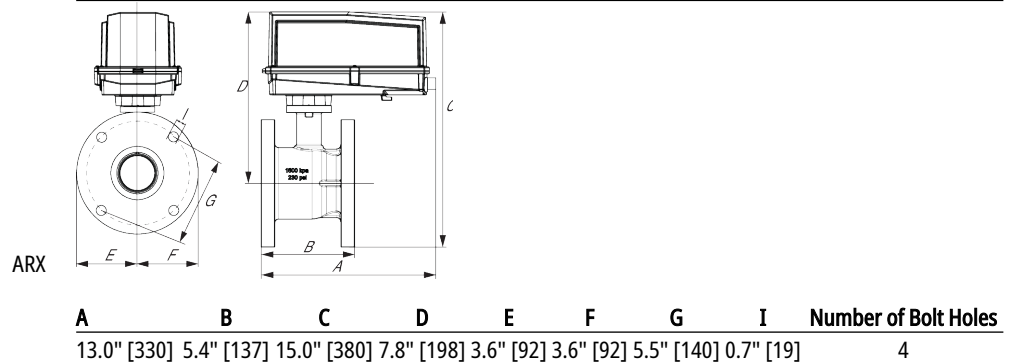
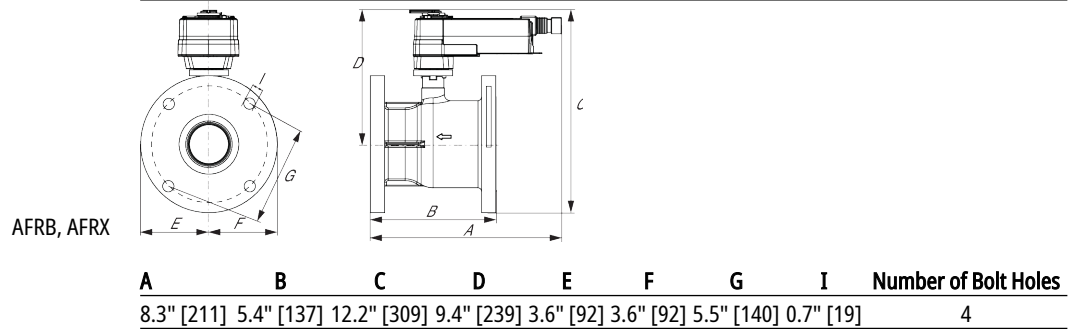
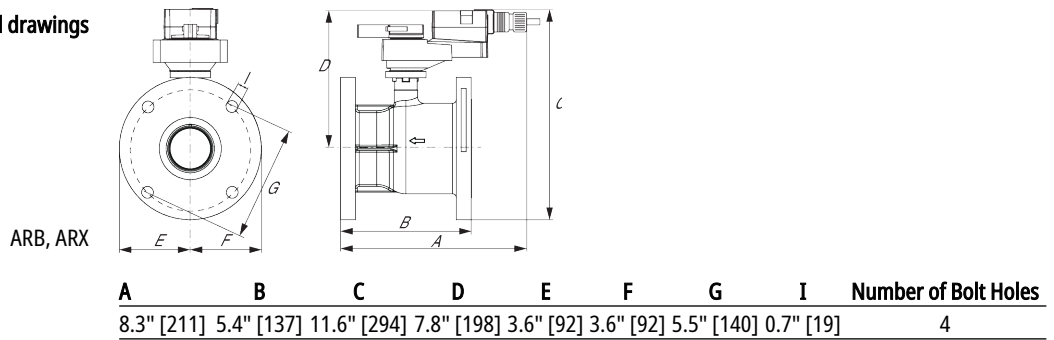
Flow/Mounting details



Upstream A
Downstream AB

Dimensions

Dimensional drawings



A	B	C	D	E	F	G	I	Number of Bolt Holes
14.5" [368]	5.4" [137]	16.6" [422]	11.9" [302]	3.6" [92]	3.6" [92]	5.5" [140]	0.7" [19]	4



A	B	C	D	E	F	G	I	Number of Bolt Holes
13.0" [330]	5.4" [137]	15.0" [380]	7.8" [198]	3.6" [92]	3.6" [92]	5.5" [140]	0.7" [19]	4



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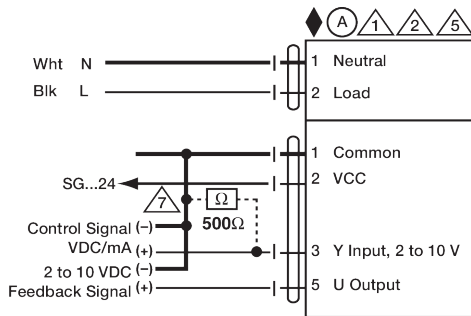
Electrical data	Nominal voltage	AC 100...240 V	
	Nominal voltage frequency	50/60 Hz	
	Power consumption in operation	4 W	
	Power consumption in rest position	1 W	
	Transformer sizing	7.5 VA (class 2 power source)	
	Electrical Connection	18 GA appliance cable, 3ft [1m] 10ft [3m] and 16ft [5m], with 1/2" conduit connector, degree of protection NEMA 2 / IP54	
	Overload Protection	electronic throughout 0...90° rotation	
Functional data	Operating range Y	2...10 V	
	Operating range Y note	4...20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)	
	Input Impedance	100 kΩ for 2...10 V (0.1 mA), 500 Ω for 4...20 mA	
	Position feedback U	2...10 V	
	Direction of motion motor	selectable with switch 0/1	
	Manual override	external push button	
	Angle of rotation	90°	
	Angle of rotation note	adjustable with mechanical stop	
	Running Time (Motor)	default 90 s, variable 90 or 150 s	
	Running time motor variable	90 or 150 s	
	Noise level, motor	45 dB(A)	
	Position indication	Mechanically, pluggable	
Safety data	Degree of protection IEC/EN	IP54	
	Degree of protection NEMA/UL	NEMA 2 UL Enclosure Type 2	
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU; Listed to UL 2043 - suitable for use in air plenums per Section 300.22(c) of the NEC and Section 602.2 of the IMC	
	Quality Standard	ISO 9001	
	Ambient temperature	-22...122°F [-30...50°C]	
	Storage temperature	-40...176°F [-40...80°C]	
	Ambient humidity	max. 95% r.H., non-condensing	
	Servicing	maintenance-free	
	Weight	Weight	2.2 lb [1.0 kg]

Electrical installation

INSTALLATION NOTES

- (A) Actuators with appliance cables are numbered.

- Provide overload protection and disconnect as required.
- Actuators may be connected in parallel. Power consumption and input impedance must be observed.
- Only connect common to negative (-) leg of control circuits.
- A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.
- Meets cULus requirements without the need of an electrical ground connection.
- Warning! Live Electrical Components!**
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.



2...10 V / 4...20 mA Control AC 100...240 V